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(without alignments)
10113.602 Million cell updates/sec
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1 GGATTGAACAAGGACGCATT.....TATAACTATGTTGATAAAG 2232
                                                                                                                        June 1, 2003, 17:59:15 ; Search time 497 Seconds
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GenCore version 5.1.5
Copyright (c) 1993 - 2003 Compugen Ltd.
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                                                                                                                                                                                                                                                                                                                                                                 2185239 seqs, 1125999159 residues
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                                                                                   OM nucleic - nucleic search, using sw model
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Gapop 60.0 , Gapext 60.0
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Maximum DB seq length: 200000000
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/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001a.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:* /SIDS2/gcgdata/geneseg/genesegn-embl/NA1989.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA1990.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA1991.DAT:* /SIDS2/gcgdata/geneseg/genesegn-embl/NA1997.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA1998.DAT:*/SIDS2/gcgdata/geneseg/genesegn-embl/NA1999.DAT:* /SIDS2/gcgdata/geneseq/genesegn-embl/NA1992.DAT:* /SIDS2/gcgdata/geneseq/genesegn-emb1/NA1994.DAT:* /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1995.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1996.DAT:* /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		Description	Human monocyte che	Human Tow adenosin	Human low adenosin	Human adenosine re	Human adenosine re	Ovary cancer relat	Human adenosine re	Human low adenosin	Human monocyte che
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SUMMAKIES		ID	AAQ96297	AAF21105	AAF21272	AAA34983	AAA35150	ABL68124	AAA35151	AAF21273	AAQ96298
		ОВ	16	21	21	21	21	24	21	21	16
		Query ore Match Length DB I	2232	143068	143068	143068	143068	143068	149412	152740	43.9 1979
	ф	Query Match	100.0	51.6	51.6	51.6	51.6	51.6	51.6	51.6	43.9
		Score	2232	1152	1152	1152	1152	1152	1152	1152	980
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n wild-type	n CCR2-641	n monocyte	eu	00	r inactiv	-protein	Human G-protein ch		Human CC-CKR5 cod1	Mon-endogenous hum		HIV-1 co-receptor		Human CC chemokine	c	C	$\vec{\cdot}$	deceb	Human HIV-1 co-rec	-protein	G-protein	G-protein	G-protei	in HDGNR1	sucod	for inacti	tor human C	CCR5 CDNA	chemokine	chemokine r	low adenosi	adenosine r	chemokine r	n chemokin	Human chemokine (C	
AAS1214	AAS12	AAT9697	ABI9797	AAV8413	AAT9011	AAD1319	AAD1329	ARK5187	AAV2399	797979A	ABA973	AAV8412	AAT7692	ABA0231	ABA0231	AAT7691		AAV8412	AAH2690	AAT4404	AAZ9148	AAD1318	AAD1328	AAF2639	ABK5185		AAT9011	AAF8709	AAT9954	AAT8	AAF2127	AAA3514	AAD0857	AAZ24	ABA9731	
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ALIGNMENTS

AA096297 standard; cDNA; 2232 BP.

RESULT 1 AAQ96297

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Monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine; ss.
                        Human monocyte chemoattractant protein-1 receptor MCP-1RA.
                                                                        Location/Qualifiers
40..1161
                                                                                                                                   95WO-US00476
                                                                                                                                                  94US-0182962
              29-DEC-1995 (first entry)
                                                                                        /*tag= a
                                                                                                                                                                (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                Charo I, Coughlin S;
                                                                                                                                                                                              WPI; 1995-263866/34.
P-PSDB; AAR79165.
                                                                                                                                                   13-JAN-1994;
                                                            Homo sapiens
                                                                                                                                    11-JAN-1995;
                                                                                                        W09519436-A
                                                                                                                      20-JUL-1995.
AAQ96297;
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family, degenerate oligo primers were designed corresp. to the conserved sequences R79167 in the second and R79168 in the third transmembrane domains of the MIP-lalpha/RANTES receptor, the IL-8 creceptors and the HUMSTRS orphan receptor (Genean Accession #M99233.)

The degenerate oligo incorporating EcoRI and XhoI sites at their 5, and are oligo incorporating EcoRI and XhoI sites at their 5, cells with the primers yieled a number of CDNA derived from MM6 appeared to encode a novel protein. To obtain a full-length version of this clone, a MM6 cDNA library was constructed in pFRGG and probed additional clones in the MM6 clone, and cDNA library revealed a second sequence that was identical to the 2.1 kb cDNA sequence first obtd. but contained a different cytoplasmic tail. The second sequence from the 5' UTR through the putative seventh transmembrane domain appears to represent alternative splicing of the carboxyl-terminal and MCP-IRR protein. The two sequences are denoted MCP-IRR contained mol. wt. of about 41,000 daltons. MCP-IRB has a predicted mol. wt. of about 42,000 daltons. MCP-IRB used partic. DNA encoding monocyte chemo-attractant protein-1 receptor - used partifor identifying antagonists and for treating diseases characterised by To identify and clone new members of the chemokine receptor gene Disclosure; Fig 1; 84pp; English. monocytic infiltrates

Sequence 2232 BP; 602 A; 464 C; 508 G; 658 T; 0 other;

CGGTTTATCAGAAATACCAACGAGAGCGGTGAAGAAGTCACCACCTTTTTTGATTATGAT 120 180 181 CTCTACTCGCTGGTGTTCATCTTTGGGGTAACATGCTGGTCGTCGTCGTCTTA 240 241 ATAAACTGGAAAAAGCTGAAGTGCTTGACTGTACATTTACCTGCTCAACCTGGCCATCTCT 300 241 ATAAACTGGAAAAAGGTGAAGTGCTTGACTGACATTTACCTGGTCAACCTGGCCATCTCT 300 301 GATCIGCTITITCTTATTACTCTCCCATTGTGGGCTCACTCTGCTGCAAATGAGTGGGTC 360 Gaps 1 GGAITGAACAAGGACGCATTTCCCCAGTACATCCACAACATGCTGTCCACATCTCGTTCT 60 361 TTTGGGAATGCAATGTGCAAATTATTCACAGGGCTGTATCACATCGGTTATTTGGCGGA 420 421 ATCTTCTTCATCATCCTCCTGACAATCGATAGATACCTGGCTATTGTCCATGCTGTTT 480 480 121 TACGGTGCTCCCTGTCATAAATTTGACGTGAAGCAAATTGGGGGCCCAACTCCTGCCTCCG 421 ATCTTCTTCATCATCCTCCTGACAATCGATAGATACCTGGCTATTGTCCATGCTGTTT DB 16; Length 2232; ; 0 Indels 0; ; Pred. No. 0; 0; Mismatches Score 2232; 100.0%; 100.0%; Matches 2232; Conservative Local Similarity Query Match 301 à ò g ò q g à ò g ò q ò g å g qq à

961 GITGGGGAGAAGTICAGAAGCCITTTTCACATAGCICITGGCTGTAGGATTGCCCCACIC 1020 1021 CAAAAACCAGTGTGGAGGTCCAGGAGTGACACCAGGAAAGAATGTGAAAGTGACTACA 1080 1081 CAAGGACTCCTCGATGGTCGTGGAAAAGGAAAGTCAATTGGCAGAGCCCCTGAAGCCAGT 1140 601 TATGTCTGTGGCCCTTATTTCCACGAGGATGGAATAATTTCCACACAAATAATGAGGAAC 660 661 ATTITGGGGCTGGTCCTGCCGCTCATCATGGTCATGCTACTCGGGAATCCTGAAA 720 840 900 900 1141 CTTCAGGACAAAGAAGGAGCCTAGAGACAGAAATGACAGATCTCTGCTTTGGAAATCACA 1200 721 ACCCTGCTTCGGTGTCGAAACGAGAAGAGGCATAGGGCAGTGAGAGTCATCTTCACC 780 840 901 CAGGTGACAGAGTCTTTGGGATGACTCACTGCTGCATCAATCCCATCATCTATGCCTTC 960 CGTCTGGCTTCACAGATGTGTGATTCACAGTGTGAATCTTGGTGTCTACGTTACCAGGCA 1260 1321 TCCAGTTCCTCATTTTGAATACAGGCATAGAGTTCAGACTTTTTTAAATAGTAAAAT 1380 1441 CATGTCAAACGTGAAAATGCTGTATTAGTCACAGAGATAATTCTAGCTTTGAGCTTAAGA 1500 1501 ATTITGAGCAGGTGGTATGTTTGGGAGACTGCTGAGTCAACCCAATAGTTGTTGATTGGC 1560 1561 AGGAGTTGGAAGTGTGTGATCTGTGGGCAATTAGCCTATGTGCATGAGCACCATCTAAGTA 1620 1561 AGGACTIGGAAGTGTGTGAGTTTGTGGGCACATTAGCCTATGTGCATGAGCATCTAAGTA 1620 1621 ATGATGTCGTTTGAATCACAGTATACGCTCCATCGCTGTCATCTCAGCTGGATCTCCATT 1680 781 ATCATGATTGTTTACTTTCTCTTCTGGACTCCCTATAACATTGTCATTCTCCTGAACACC 781 ATCATGATTGTTTACTTTCTCTGGACTCCCTATAACATTGTCATTCTCCTGAACACC 841 TTCCAGGAATTCTTCGGCCTGAGTAACTGTGAAAGCACCAGTCAACTGGACCAAGCCACG 1201 1381 1501 g δy ΩD ă qq à g ŏ g δ a à g Ω ð ŏ ದ್ದ δ qq ò qq Qγ Ω òγ q Dp ò δŏ d δ g ŏ g δ

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Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antinflammatory; framunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasconstriction; asthma; RDS; surfactant hypoproduction; pain: cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pain: cystic fibrosis; allergic rhinitis; chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
                                                                                                                                                                                                                                                                                        TITCACCITCATATATITGTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGA 2160
                                                                                                                                                                                                                                                                                                                                   2101 TITCACCTICATAITATTGTATGATCCTAATGCATAAAATGTTAAGTTGATGGTGA 2160
                                                                                                                                                                                                                                                                                                                                                                       TCTACTITCAGGCCACATGGCTAAAGAAGGTTTCAGAAAGAAGTGGGGACAGAGCAGAAC 2100
                                                                                                                                                                                  CTAATTIGCCAGIGGGAACTCCTAAATCAAATTGGCTTCTAATCAAAGCTTTTAAACCCT 1860
                                                                                                     1861 ATTGGTAAAGAATGGAAGGTGGAGAAGCTCCCTGAAGTAAGCAAAGACTTTCCTCTTAGT 1920
                                                                                                                                                 Human low adenosine antisense oligonucleotide related sequence #2672.
                                                                                                                                                                                                                                AAACACTGGGCTTCTAGAACCAGGCAACTTGGGAACTAGACTCCCAAGCTGGACTATGGC
                                                                                                                                                                                                                                           1741 GITTAATCACATTCGAGTGTTTCAGTGCTTCGCAGATGTCCTTGATGCTCATATTGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAF21105 standard; DNA; 143068 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-MAR-2000; 2000WO-US08020
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                         2221 TGTTGATAAAG 2232
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer; ss.
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The present invention describes low adenosine (A) content antisense cligonucleotides and compositions (I) comprising them. In the antisense cligonucleotides the A is replaced by a 'Universal' or alternative base. CC (I) can have respiratory, bronchodilator, antisinflammatory, analgesic, immunosuppressive, antisthmatic, hypotensive and cytostatic activities. The antisense oligonucleotides and (I) can be used to down regulate the cxpression and or activity of target polypeptides associated with antisense oligonucleotides and malignancies, such as stimulating and uniquoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes, communoglobulins and antibodies, antibody receptors, cytokines and chemokine receptors, adenosine receptors, bradykinin receptors, contrained briding proteins, adenosine receptors, bradykinin receptors, central cransmitters, defensions, growth factors, vasoactive peptides and receptors, binding proteins and malignancy associated proteins. The receptors, binding proteins and malignancy associated proteins. The antisense oligonucleotides may be used in this way to treat disorders and conding respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or bronchoconstriction and and in antisense of condition selected from pulmonary vasoconstriction, inflammation, allergy, pulmonary transplantation rejection, pulmonary distress syndrome condition selected from pulmonary vasoconstriction, pulmonary transplantation rejection, pulmonary infections, bronchils, the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1339 AATACAGGCATAGAGTTCAGACTTTTTTAAATAGTAAAAATAAAATTAAAATTAAAGCTGAAAAC 1398
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                                                                                              Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 143068 BP; 41194 A; 30122 C; 32403 G; 39349 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 21; Length 143068;
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; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                 Disclosure; Page 924-957; 1592pp; English
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99.88;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the present invention.
                                                                      WPI; 2000-679539/66.
(NYCE/) NYCE J W.
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1399 TGCAACTIGIAAATGIGGTAAAGAGTTAGTTTGAGTTGCIATCAIGTCAAACGTGAAAAI 1458
                                                                1459 GCTGTATTAGTCACAGAGATAATTCTAGCTTTGAGCTTAAGAATTTTGAGCAGGTGGTAT 1518
                                                                                                                                                                                                                          1519 GTTTGGGAGACTGCTGAGTCAACCCAATAGTTGTTGATTGGCAGGAGTTGGAAGTGTGTG 1578
                                                                                                                                        1579 ATCTGTGGGCACATTAGCCTATGTGCATGCAGCATCTAAGTAATGATGTCGTTTGAATCA 1638
                                                                                                                                                                                                                                                              1639 CAGTATACGCTCCATCGCTGTCATCTCAGCTGGATCTCCCATTCTCTCAGGCTTGCTGCCA 1698
                                                                                                                                                                                                                                                                                                                                                                          1699 AAAGCCITITGTGTTTTGTATTGTATGAAGTCATGCGTTTAATCACATTCGAGT 1758
                                                                                                                                                                                                                                                    GTTTCAGTGCTTCGCAGATGTCCTTGATGCTCATATTGTTCCCTAATTTGCCAGTGGGAA 1818
                                                                                                                                                                                                                                                                                                                                                                                                           1819 CTCCTAAATCAAATTGGCTTCTAATCAAAGCTTTTAAACCCTATTGGTAAAGAATGGAAG 1878
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                                                                                                                                                                                                                                                                                                                                                               1939 ITCTTATGTTGCCCAGTGTGTTTCTGATGTAGGAAGGAAAAAAACGTGGGCTTCTAGA 1998
                                                                                                                                                                                                                                                                                                                                                                                                  1999 ACCAGGGAACTIGGGAACTAGACTCCCAAGCTGGACTATGGCTCTACTTTCAGGCCACAT 2058
                                                                                                                                                                                                                                                                                                                                                                                                                                      2059 GGCTAAAGAAGGTTTCAGAAAGAAGTGGGGACAGAGCAGAACTTTCACCTTCATATATT 2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2119 GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGATGAAATGTAAATACTGTT 2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2179 TTTAACAACTATGAATTGGAAAATAAATGAATGCTATAACTATGTTGATAAAAG 2232
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Human low adenosine antisense oligonucleotide related sequence #2839.
                                                                                                                                               Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antiinflammatory;
                            AAF21272 standard; DNA; 143068 BP.
                                                                                         (first entry)
                                                                                        14-MAR-2001
                                                          AAF21272;
RESULT 3
                 AAF21272
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979 AGCCTTTTTCACATAGCTCTTGGCTGTAGGATTGCCCCCACTCCAAAACCAGTGTGTGGA 1038

g

1039 GGTCCAGGAGTGAGACCAGGAAAGAATGTGAAAGTGACTACACAAGGACTCCTGGATGGT 1098

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The present invention describes low adenosine (A) content antisense coligonuclectides and compositions (I) comprising them. In the antisense (I) can have respiratory, bronchodilator, antinfinamatory, analgesic, immunosuppressive, antiathmatic, hypotensive and cytostatic activities. The missense oligonuclectides and (I) can be used to down-regulate the correspiratory disorders and malignancies, such as stimulating and immunoglobulins and antibodies, antibody receptors, cytokines and continuing proteins, adenosine receptors, bradylinh receptors, central receptors, can another receptors, can another an ervous and non-nervous system (CNS) and peripheral nervous and non-nervous system peptide receptors, binding proteins and malignancy associated proteins. The receptors is an experiberal nervous and non-nervous system peptides and cantisense oligonucleotides may be used in this way to treat disorders and/or surfactoral hypoproduction which are associated proteins. The including respiratory obstruction (especially pulmonary obstruction) and/or lung inflammation, allergies, asthma, impeded respiratory vasoconstriction, inflammation, allergies, asthma, impeded respiratory vasoconstriction, inflammation, allergies, nulmonary transmiantarion, emphysema, chronic obstructive pulmonary disease (CPDS), nulmonary transmiantarion, emphysema, chronic obstructive pulmonary inflammation.
                  respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysems; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAF18434 to AAF21543 represent human polynucleotide fragments and antisense oligonucleotides used in the exemplification of
immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 143068 BP; 41194 A; 30122 C; 32403 G; 39349 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21; Length 143068;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51.6%; Score 1152; 99.8%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancers and respiratory obstructions -
                                                                                                                                                                                                                                                                                                              24-MAR-2000; 2000WO-US08020.
                                                                                                                                                                                                                                                                                                                                                             99US-0127958.
                                                                                                                                                                                                                                                                                                                                                                                                      (UYEC-) UNIV EAST CAROLINA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-679539/66.
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                                                                                                                                                                                                                         WO200062736-A2.
                                                                                                                                                                                                                                                                                                                                                         06-APR-1999;
                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                        26-OCT-2000.
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49393 GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGATGAAATGTAAATGTAAATGTTT 49452
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                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTAAAGAAGGTTTCAGAAAGAAGTGGGGACAGAGCAGAACTTTCACCTTCATATATT 2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGAAGAATGTAAATACTGTT 2178
                                                                                                                                                                                                                                                                                                                                                            1999 ACCAGGCAACTIGGGAACIAGACTCCCAAGCIGGACIAIGGCTCIACITICAGGCCACAI 2058
                                                                                                                                                                                                                                                                                     TICITATGTTGCCCAGTGTGTTTCTGATCTGATGCAAGCAAGAAACACTGGGCTTCTAGA 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1879 GIGGAGAAGCICCCIGAAGIAAGCAAAGACTITCCICTIAGICGAGCCAAGIIAAGAAIG 1938
                                                                                                                                                                                                   1759 GITICAGIGCITCGCAGAIGICCITGAIGCICAIAITGIICCCIAAITIGCCAGIGGGAA 1818
                                                                                                                                                                           1758
48313 GGTCCAGGAGTGAGACCAGGAAAGAATGTGAAAGTGACTACAAAGGACTCCTCGATGGT 48372
                 GITIGGGAGACTGCTGAGTCAACCCAATAGTTGTTGATTGGCAGGAGTTGGAAGTGTGG 1578
                                                                                                                                                                                                                                                                                                                                                  1639 CAGTATACGCICCATCGCIGICATCTCAGCIGGAICTCCCATTCICICAGGCTIGCIGCCA 1698
                                                                                                                                                                1279 AGACTCCAGCTGGGTTGGAAAACAGTATTTTCCAAACTACCTTCCAGTTCCTCATTTTG 1338
                                                     1159 GCCTAGAGACAGAAATGACAGATCTCTGCTATTGGAAATCACACGTCTGGCTTCACAGATG 1218
                                                                                          1699 AAAGCCTTTTGTGTTTTGTTTTGTATCATTATGAAGTCATGCGTTTAATCACATTCGAGT
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The present invention describes a new composition comprising an antisense oligonucleotide (ON) with low adenosine (up to 15%), which cartisense oligonucleotide (ON) with low adenosine (up to 15%), which cargets nucleic acids involved in bronchoconstriction, allergies, and/or confident to an have antinflammatory, antiallergic, antiasthmatic, cytostatic and analgesic activities. The compositions are useful for the treatment of diseases associated with inflammation.

Constituted airways, including lung diseases and diseases whose secondary effects afflict the lungs of a subject. They can be used for treating of eigenstation, respiratory distress syndrome, pain, cystic eigenstation, insepded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive carcinomas, and cancers which may metastasise to the lungs, including corrections, and cancers which may metastasise to the lungs, including correlease of deoxyadenosine which may metastasis to the lungs, including created and prostate cancer. The reduction of the adenosine content of the ons reduces side effects. The A-containing ONs break down with the release to deoxyadenosine which activates adenosine receptors causing crelease of deoxyadenosine which activates adenosine receptors causing bronchoconstriction and inflammation. AAA32313 to AAA33312 represent curvention, which correspond to SEQ ID No:1 to 185, but the sequences differ from the present curvention. N.B. Sequences given in the disclosure of the present curvention. N.B. Sequence listing corresponding SEQ ID No: sequences given in the sequence of the present curvention and the match up with their corresponding SEQ ID No: sequences given in the sequence listing.
                                                                                                                                                                                                                                                                                                                                                 Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothioate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antinflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired alrway; lung disease; ischeamic condition; pulmonary vasoconstriction; asthma: respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; CoPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstriction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or
OY 2179 TTTAACAACTATGATTTGGAAAATAAATCAATGCTATAACTATGTTGATAAAAG 2232
DD 49453 TTTAACAACTATGATTTGGAAAATAAATCAATGCTATAACTATGTTGATAAAAG 49506
                                                                                                                                                                                                                                                                                                           Human adenosine receptor related polynucleotide SEQ ID NO:2672.
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                                                                                                                                                                           AAA34983 standard; DNA; 143068 BP
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                                                                                                                                                                                                                             AAA34983;
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48253 AGCCTTTTCACATAGCTCTTGGCTGTAGGATTGCCCCACTCCAAAAACCAGTGTGTGGA 48312
                                                                                                                                           979 AGCCTITITCACATAGCICTIGGCIGTAGGATIGCCCCACTCCAAAAACCAGIGIGIGGA 1038
                                                                                                                             1039 GGTCCAGGAGTGAGACCAGGAAAGAATGTGAAAGTGACTACACAAGGACTCCTCGATGGT 1098
                                                                                                                                                                             CGTGGAAAAGGAAAGTCAATTGGCAGAGCCCCTGAAGCCAGTCTTCAGGACAAAGGA 1158
                                                                                                                                                                                                                         1159 GCCTAGAGACAGAAATGACAGATCTCTGCTTTGGAAATCACACGTCTGGCTTCACAGATG 1218
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                                                                                                                                                                                                                                                                                                                                                                                                              1399 TGCAACTTGTAAATGTGGTAAAGAGTTAGTTTGAGTTGCTATCATGTCAAACGTGAAAAT 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1459 GCTGTATTAGTCACAGAGATAATTCTAGCTTTGAGCTTAAGAATTTTGAGCAGGTGGTAT 1518
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1579 ATCTGTGGGCACATTAGCCTATGTGCATGCAGCATCTAAGTAATGATGTCGTTTGAATCA 1638
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           Sequence 143068 BP; 41194 A; 30122 C; 32402 G; 39350 T; 0 other;
                                         DB 21; Length 143068;
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                                     51.6%; Score 1152; D. 99.8%; Pred. No. 0; Live 0; Mismatches
                                                         Matches 1252; Conservative
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49213 TICTIATGTTGCCCAGTGTTTCTGATCTGATGCAAGCAAGAAACACTGGGCTTCTAGA 49272
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                                                    1999 ACCAGGCAACTTGGGAACTAGACTCCCAAGCTGGACTATGGCTCTACTTTCAGGCCACAT 2058
                                                                                                   2059 GGCTAAAGAAGGTTTCAGAAAGAAGTGGGGACAGAGCAGAACTTTCACCTTCATATAT 2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothioate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiinflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma; respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
                                                                                                                                                                      2119 GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGATGAAATGTAAATACTGTT
                                                                                                                                                                                                                                     Human adenosine receptor related polynucleotide 2nd SEQ ID NO:24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New antisense oligonucleotides useful for treating e.g. pulmonary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vasoconstriction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or
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                                                                                                                                                                                                                                                                                                                                                          AAA35150 standard; DNA; 143068 BP.
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carcinomas, and cancers which may metastasise to the lungs, including breast and prostate cancer. The reduction of the adenosine content of the ONs reduces side effects. The A-containing ONs break down with the release of deoxyadenosine which activates adenosine receptors causing bronchoconstriction and inflammation. AAA32313 to AAA33312 represent the nucleotide sequences given in the sequence listing from the present thrownion, which correspond to SEO ID NO:1 to 2815, and then the last 185 sequences are also called SEO ID NO:1 to 185, but the sequences differ from the previously named sequences. SEO ID NO:11 to 1680 (AAA3332) are specifically claimed ONs from the present invention on one match up with their corresponding SEO ID NO: sequences given in the sequence listing.
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1759 GTTTCAGTGCTTCGCAGATGTCCTTGATGCTCATATTGTTCCCTAATTTGCCAGTGGGAA 1818

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Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
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                                                                                        49153 GTGGAGAAGCTCCCTGAAGTAAGCAAAGACTTTCCTCTTAGTCGAGCCAAGTTAAGAATG
                                                                                                                                                                             1819 CTCCTAAATCAAATTGGCTTCTAATCAAAGCTTTTAAACCCTATTGGTAAAGAATGGAAG
                                                                            GTGGAGAAGCTCCCTGAAGTAAGCAAAGACTTTCCTCTTAGTCGAGCCAAGTTAAGAATG
                                                                                                                                                                  ACCAGGCAACTTGGGAACTAGACTCCCAAGCTGGACTATGGCTCTACTTTCAGGCCACAT
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2000US-235077P.
2000US-235082P.
2000US-235134P.
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2000US-233133P.
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22-SEP-2000;
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18-SEP-2000;
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27-SEP-2000;
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Screening for anti-neoplastic agent involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, and determining a change in expression of a gene of a signature gene set
                                                                                                                                                                                                                               Ebner R, Endress G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           carcinoma, papillary carcinoma and Wilm's tumour
                                                                                                                                                                                                                                                                                                      Claim 1; SEQ ID 6461; 44pp; English.
                                                                                                                                                                                                                               Carter KC,
                                                                 2000US-236111P.
2000US-236842P.
2000US-236891P.
                                                                                          2000US-237172P.
2000US-237173P.
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2000US-237598P.
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2000US-237606P.
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2000US-237295P
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01-NOV-2000; 2000US-245084P.
                                                                                                                                                                                                                              Augustus M,
                                                                                                                                                                                                                                      Weaver Z;
                                                                                                                                                                                                             (AVAL-) AVALON PHARM.
                                                                                                                                                                                                                                                     WPI; 2002-188264/24.
                      28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
29-SEP-2000;
29-SEP-2000;
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Soppet DR,
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The present invention describes a method (MI) for screening for an anti-neoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 8447 sequences (given in AbL61664 comprises a sequence (S) selected from 8447 sequences (given in AbL61664 comprises a sequence (S) at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity; (I) has ofvostatic activity and can be used in gene therapy. MI can be used for screening can anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a structure and/or properties of the agent. MI can be used in the creatment of cancer such as colon, breast, stomach, lung, thyroid, esophageal, ovarian, kidney, prostate or pancreatic cancer.

C denocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer.

C infiltrating lobular cancer. ó 48253 AGCCTTTTTCACATAGCTCTTGGCTGTAGGATTGCCCCACTCCAAAAACCAGTGTGTGGA 48312 48313 GGTCCAGGAGTGAGCCAGGAAAGAATGTGAAAGTGACTACACAAGGACTCCTCGATGGT 48372 1039 GGTCCAGGAGTGAGACCAGGAAAGAATGTGAAAGTGACTACACAAGGACTCCTCGATGGT 1098 979 AGCCTTTTTCACATAGCTCTTGGCTGTAGGATTGCCCCACTCCAAAAACCAGTGTGTGGA 1038 1099 CGTGGAAAAGGAAAGTCAATTGGCAGAGCCCCTGAAGCCAGTCTTCAGGACAAAAGA 1158 Gaps Sequence 143068 BP; 41194 A; 30122 C; 32403 G; 39349 T; 0 other; Score 1152; DB 24; Length 143068; Pred. No. 0; 0; Mismatches 2; Indels 0; 51.6%; Best Local Similarity 99.8 Matches 1252; Conservative Query Match

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48553 AGACTCCAGCTGGGTTGGAAAACAGTATTTTCCAAACTACCTTCCAGTTCCTCATTTTG 48612
                                                                                                                                                            48673 TGCAACTIGTAAAIGIGGTAAAGAGTTAGTTTGAGTTACTATCATGTCAAACGTGAAAAI 48732
1159 GCCTAGAGACAGAAATGACAGATCTCTGCTTTGGAAATCACACGTCTGGCTTCACAGATG 1218
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                                                              1339 AATACAGGCATAGAGTTCAGACTTTTTTAAATAGTAAAAATAAAATTAAAGCTGAAAAC
                                                 1279 AGACTCCAGCTGGGTTGGAAAACAGTATTTTCCAAACTACCTTCCAGTTCCTCATTTTTG
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AAA35151 standard; DNA; 149412 BP.
RESULT 7
           AAA35151
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AAA35151;

28-JUL-2000 (first entry)

Human adenosine receptor related polynucleotide 2nd SEQ ID NO:25.

Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothioate; impaired respiration; inflammation; allergy; allergy; disease; bronchoconstitution; inhibitor; antiniflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired alrway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma: respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.

Homo sapiens.

WO200009525-A2.

24-FEB-2000

99WO-US17712. 03-AUG-1999; 98US-0095212. 03-AUG-1998;

(UYEC-) UNIV EAST CAROLINA.

Nyce JW;

WPI; 2000-205971/18.

New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstriction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or cancers

Disclosure; Page 1138-1171; 1343pp; English.

The present invention describes a new composition comprising an antisense oligonuclectide (ON) with low adenosine (up to 15%), which targets nucleic acids involved in bronchoconstriction, allergies, and/or inflammation. The ON can have antiinflammatory, antiallergie, and/or conflammation. The ON can have antiinflammatory, antiallergies, and/or antiasthmatic, cytostatic and analgesic activities. The compositions are useful for the treatment of diseases associated with inflammation, impeded respiration, respiratory diseases whose secondary effects afflict the lungs of a subject. They can be used for treating c. g. ischaemic conditions, pulmonary vasoconstriction, allergies, casthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive carclinomas, and cancers which may metastasise to the lungs, including carclinomas, and cancers which may metastasise to the lungs, including breast and prostate cancer. The reduction of the adenosine content of the ONs reduces side effects. The A-containing ONs break down with the crelease of deoxyadenosine which activates adenosine receptors causing bronchoconstriction and inflammation. AAA32313 to AAA33312 represent to unvention, which correspond to SEQ ID NO:1 to 1885, but the sequences differ from the previously named sequences. SEQ ID NO:1 to 1880.

(AAA332312 to AAA3392) are specifically claimed ONS from the present convention. N. B. Sequences given in the disclosure of the present convention on the match up with their corresponding SEQ ID NO: sequences given in the sequence listing.

Sequence 149412 BP; 43049 A; 31388 C; 33852 G; 41123 T; 0 other;

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51.6%; Score 1152; DB 21; Length 149412; 99.8%; Pred. No. 0;
          Query Match
Best Local Similarity
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Ма	tches	1252; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
δŏ	616	CAAAAACCAGTGTGGA 1038
Dp	54597	CITITITCACATAGCICITGGGIGTAGGAITGCCCCACTCCAAAAACCAGIGTGTGGGA 546
oy Db	1039	GGTCCAGGAGTGAGACCAGGAAAGAATGTGAAAGTGACTACACAAGGACTCCTCGATGGT 1098
6 4 d	109	GTGGAAAAGGAAAGTCAATTGGCAGAGCC GTGGAAAAGGAAAGTCAATTGGCAGAGC
Z VO	115	CCTAGAGACAGAAATGACAGATCTCTGCTTTGGAAATCACACACA
g d	77	CCTAGAGAGAAATGACAGATCTCTGCTTTGGAAATCACACGTCGGCTTGGCTTCGGCTTCAGATGCTGGAAATCACAAAAAAAA
g G	1419	48
δō	127	AGACTCCAGCTGGGTTGGAAAACAGTATTTCCAAACTACCTTCCAGTTCCTCATTTTG 1338
a ò	1339	GGGTTGGGAARACAGIAIIIICCAAAAAAAAAAAAATAAAGGTGAAAAC 1398
q	95.	
Qy	139	TGCAACTTGTAAATGTGGTAAAGATTAGTTTGAGTTGCTATCATGTCAAACGTGAAAT 1458
qq	55017	AACTIGIAAATGIGGIAAAGAGTIAGITTGAGTIACIATCATGICAAACGIGAAAAL 5507
δ	145	GCTGTATTAGTCACAGAGATAATTCTAGCTTTGAGCTTAAGAATTTTGAGCAGTGGTAT 1518
QQ Q	55077	STATTAGTCACAGAGATAATTCTAGCTITGAGGTTAAGAATTTTGGGGGGGGGG
Oy .	151	GITTGGGAGACTGCTGAGTCAACCCAATAGTTGTTGATTGGCAGGAGTTGGAAGTGTTG 15/8
gg	13	TTGGGAGACIGCIGAGICAACCCAALAGITGGTTGGTTGGTTGGTGGTGGTGGTAAGAAAGAAAAGAAAAAA
δ O	1579	52
QY	9	CAGTATACGCTCCATCGCTGTCATCTCAGCTGGAT
QQ	55257	CATTCTCTCAGGCTTGCTGCCA 553
QY	1699	AAAGCCTTTGTGTTTTGTTTTGTATCATATGAAGTCATGCGTTTAATCACATTCGAGT 1758
qq	55317	AAAGCCTTTTGTGTTTTGTTTTGTATCATTATGAAGTCATGCGTTTAATCACATTCGAGT 553
Qγ		GTTCAGTGCTTCGCAGATGTCCTTGATGCTCATATTGTTCCTAATTTGCCAGTGGGAA 1811
ΩD	55377	GTTTCAGTGCTTCGCAGATGTCCTTGATGCTCATATTGTTCCCTATTTTTGCCCAGTGGGGAA >>43
δy	1819	CICCIAAATCAAATTGGCTTCTAATCAAAGCTTTTAAACCCTATTGGTAAAGAATGGAAG 1878
Dp	55437	CICCIAAAICAAAITGGCIICIAAICAAAGCIIITAAACCCIAITGGIAAAGAAIGGAAG 354
QY	1879	938
qq	55497	SEAGAAGCTCCCTGAAGTAAGCAAAGACTTTCCTCTTAGTCGAGCCAAGTTAAGAATG 555;
QY	1939	966
QΩ	5555	TCTTATGTTGCCCAGTGTGTTTCTGATCTGATGCAAGCAA
QY	66	ACCAGGCAACTIGGGAACIAGACICCCAAGCIGGACIAIGGCICTACTIICAGGCCACAT 20
qa	5561	ZAGGCAACTTGGGAACTAGACTCCCAAGGTGGACTATGGCTCTACTTTCAGGCCACAT 5567

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2119 GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGATGAAATGTAAATACTGTT 2178
2059 GGCTAAAGAAGGTTTCAGAAAAGAGGGGGACAGAGCAGAACTTTCACCTTCATATATT
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AAF21273 standard; DNA; 152740 BP. 14-MAR-2001 (first entry) AAF21273; RESULT 8 AAF21273

Human low adenosine antisense oligonucleotide related sequence #2840.

Low adenosine antisense oligonucleotide; phosphorothioate; allergy; bundmun; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antiinflammatory; immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; immeded respiration; surfactant hypoproduction; pulmonary vasconstriction; asthma; subs; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis;

Homo sapiens.

WO200062736-A2.

26-OCT-2000

24-MAR-2000; 2000WO-US08020.

99US-0127958. 06-APR-1999;

(UYEC-) UNIV EAST CAROLINA, (NYCE/) NYCE J W.

Nyce JW;

WPI; 2000-679539/66.

Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions -

Disclosure; Page 1219-1254; 1592pp; English.

The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) comprising them. In the antisense oligonucleotides the A is replaced by a 'Universal' or alternative base. (I) can have respiratory, bronchodilator, antiinflammatory, analgesic, amminosuppressive, antiasthmatic, hypotensive and cytostatic activities. The antisense oligonucleotides and (I) can be used to down-regulate the lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, annibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes, binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system receptors, con peripheral nervous and non-nervous system receptors, contral nervous and non-nervous system peptide

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transmitters, defensins, growth factors, vasoactive peptides and antisense oligonaleotides may be used in this way to treat disorders including respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or bronchoconstriction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation, allergy(ies) allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, fragments and antisense oligonucleotides used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                  54597 AGCCTTTTCACATAGCTCTTGGCTGTAGGATTGCCCCACTCCAAAAACCAGTGTGTGGA 54656
                                                                                                                                                                                                                                                                                                                                                                                                                                                              54716
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                                                                                                                                                                                                                                                                                                           Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                            Score 1152;
                                                                                                                                                                                                                                                                                          51.6%;
                                                                                                                                                                                                                                                                                                                    Matches 1252; Conservative
                                                                                                                                                                                                                          the present invention.
                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                        Query Match
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    used partic.

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                                                                                                                                                                                                                                                       1999 ACCAGGCAACTTGGGAACTAGACTCCCAAGCTGGACTATGGCTCTACTTTCAGGCCACAT 2058
                                                                                                                                                                                                                                           2119 GTATGATCCTAATGAATGCATAAAATGTTAAGTTGATGGTGAAGATGTAAATACTGTT 2178
                                                                                                                     1939 TICTIANGTICCCCAGIGITITCTGAICTGAIGCAAGCAAGAAACACIGGGCTICTAGA 1998
                                      1819 CTCCTAAATCAAATTGGCTTCTAATCAAAGCTTTTAAACCCTATTGGTAAAGAATGGAAG 1878
                                                                              GTGGAGAAGCTCCCTGAAGTAAGCAAAGACTTTCCTCTTAGTCGAGCCAAGTTAAGAATG 1938
1759 GTTTCAGTGCTTCGCAGATGTCCTTGATGCTCCTAATTTCCCTAATTTGCCAGTGGGAA 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                       Monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         To identify and clone new members of the chemokine receptor gene
                                                                                                                                GGCTAAAGAAGGTTTCAGAAAGAAGTGGGGACAGAGCAGAACTTTCACCTTCATATTTT
                                                                                                                                                                                                                                                                                   Human monocyte chemoattractant protein-1 receptor MCP-1RB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
81..1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 2; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                             AAQ96298 standard; cDNA; 1979 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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conserved sequences R79167 in the second and R79168 in the third conserved sequences R79167 in the second and R79168 in the third conserved sequences R79167 in the second and R79168 in the third transmembrane domains of the MIP-lalpha/RANTES receptor; the IL-8 creceptors and the HUMSTRS orphan receptor (GenBank Accession #M92293. The degenerate oilgo incorporating EcoRI and XhoI sites at their 5. The degenerate oilgo incorporating EcoRI and XhoI sites at their 5. Cells with the primers yieled a number of cDNA derived from MM6 colls with the primers yieled a number of PCR products. One CDNA appeared to encode a novel. protein. To obtain a full-length version of this clone, a MM6 cDNA library was constructed in PFROG and probed with the PCR product. A 2.1 kb cDNA clone was obtd. Analysis of additional clones in the MM6 cDNA library revealed a second additional clones in the PM6 cDNA library revealed a second continued a different cytoplasmic tail. The second sequence first obtd. From the 5' UTR through the putative seventh transmembrane domain contained a different cytoplasmic tail. The second sequence contained a different cytoplasmic tail. The second sequence contained a different cytoplasmic cail. The second sequence contained a different cytoplasmic cail. The second sequence contained a different cytoplasmic cail. The carboxyl-terminal contained a second sequences are denoted MCP-IRA protein. The two sequences are denoted MCP-IRA protein. The two sequences are denoted MCP-IRA protein. The protein of the MCP-IRA has a predicted mol. Wt. of about 42,000 daltons. MCP-IRB has a predicted mol. Wt. of about 42,000 daltons. MCP-IRB
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has a mol. wt. of about 41,000 daltons.
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Sequence 1083 BP; 255 A; 260 C; 247 G; 321 T; 0 other;

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Human; CCR2 receptor; CCR2-641; CCR2-64V; gene therapy; atherosclerosis;
single nucleotide polymorphism; hypercholesterolaemia; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Diagnosing atherosclerosis or susceptibility to atherosclerosis in a subject, by determining a single nucleotide polymorphism in specific codon of a polynucleotide encoding human CCR2 receptor in genome of the
                                                                                                                           721 ACCCTGCTTCGGTGTGGAAAGAAGAAGAGGCATAGGGCAGTGAGAGTCATCTTCACC 780
                                     781 ATCAIGATHGTTTACTTTCTGTTCTGGACTCCCTATAACATTGTCATTCTCTGAACACC 840
                                                                                      CAGGTGACAGAGACTCTTGGGATGACTCACTGCTGCATCAATCCCATCATCTATGCCTTC 960
          841 TTCCAGGAATTCTTCGGCCTGAGTAACTGTGAAAGCACCAGTCAACTGGACCAAGCCACG
                                                                                                                                                                                                                                                                             Human wild-type CCR2-64V polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Page 20-21; 28pp; English.
                                                                                                                                                                                                                     AAS12140 standard; DNA; 1083 BP.
                                                                                                                                                                (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                     961 GTTGGGGAGAAGTTCAGAAG 980
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                                                                                                                                                                                                                                                                                                                                                                                     22-FEB-2001; 2001WO-GB00755.
                                                                                                                                                                                                                                                           04-DEC-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Valdes AM, Groot PHE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-550086/61.
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                                                                                                                                                                                                                                                                                                                                Homo sapiens.
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100 ACCACCITITIGATIATGATIACGGIGCICCTGICATAAATITGACGIGAAGCAAATT 159
                                                                                    160 GGGGCCCAACTCCTGCCTCCGCTCGTTCGTTCTTTGGTTTTGTGGCAAC 219
                                                                                                                         300
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                                                                                                                                                                                        280 CIGCICAACCIGGCCAICTCTGATCIGCTTTTTCTTAITACTCICCCAITGIGGGCTCAC 339
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                                                                                                                                                                                                                                                                                                                                                                                           640 TTCCACACAATAATGAGGAACATTTTGGGGCTGGTCCTGCCGCTGCTCATCATGGTCATC 699
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       820 ATIGICATICICCIGAACACCITCCAGGAATICITCGGCCTGAGTAACIGIGAAAGCACC 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           880 AGTCAACTGGACCAAGCCACGCAGGTGACAGAGACTCTTGGGATGACTCACTGCTGCATC 939
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                                                                                                                                                                                                                                                                                                                                            520 AGTGTGATCACCTGGTTGGTGGCTGTGTTTGCTTCTGTCCCAGGAATCATCTTTACTAAA
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 42.2%; Score 941; DB 22; Length 1083; 100.0%; Pred. No. 0; tive 0; Mismatches 0; Indels 0
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RESULT 11 AAS12139

The invention relates to diagnosing atherosclerosis (or susceptibility to) in a subject by determining expression or activity of the human CCR2-641 polypeptide (a polymorphic variant form of the human CCR2 receptor) by core a single nucleotide polymorphism in codon 64 of the polymorphic variant encoding the CCR2 receptor. This results in production of CCR2-641, whereby polymorphic variants are associated with a lower incidence of also be analysed. The sequences of the invention can be used for also be analysed. The sequences of the invention can be used for the disease outcome in a patient and also for the production of a treatment for hypercholesterolaemia. The sequence represents DNA encoding the wild-type receptor polypeptide CCR2-64V.

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/product= Monocyte_chemoattractant_protein_l_receptor
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                                                                                                                                                                                                                              280 CTGCTCAACCTGGCCATCTCTGTTTTCTTATACTCTCCCATTGTGGGCTCAC 339
                                                                                                                                        241 CIGCICAACCIGGCCAICICIGAICTGCITITITCITATTACICICCAITGIGGGCICAC 300
                                                                                                                                                                                             340 TCTGCTGCAAATGAGTGGGTCTTTGGGAATGCAATGTGCAAATTATTCACAGGGCTGTAT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; MCP-1; monocyte chemoattractant protein; receptor; tumour; inflammatory disease; viral; allergy; diabetes; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCTACTCGGGAATCCTGAAAACCCTGCTTCGGTGTCGAAACGAGAAGAAGAAGAGGCATAGG
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                                                                                                                                                                                                                                                                                                              Human monocyte chemoattractant protein 1 receptor encoding cDNA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to diagnosing atherosclerosis (or susceptibility to) in a subject by determining expression or activity of the human CCR2-641 polypeptide (a polymorphic variant form of the human CCR2 receptor) or the CCR2-64V polypeptide (human CCR2 receptor), by screening for a single nucleotide polymorphism in codon 64 of the polynucleotide encoding the CCR2 receptor. This results in production of CCR2-64I, whereby polymorphic variants are associated with a lower incidence of atherosclerosis. The presence or amount of CCR2-64I/V in a sample can also be analysed. The sequences of the invention can be used for predicting the response of a patient to drug treatment, for predicting the disease outcome in a patient and also for the production of a treatment for hypercholesterolaemia. The sequence represents DNA encoding
                                                                                                                                                                                                                                                  Human; CCR2 receptor; CCR2-641; CCR2-64V; gene therapy; atherosclerosis; single nucleotide polymorphism; hypercholesterolaemia; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Diagnosing atherosclerosis or susceptibility to atherosclerosis in a subject, by determining a single nucleotide polymorphism in specific codon of a polynucleotide encoding human CCR2 receptor in genome of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 ACCACCITITITGAITATGATTACGGTGCTCCCTGTCATAAAITTGACGTGAAGCAAATT 159
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /standard_name= "Single nucleotide polymorphism"
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Pred. No. 0;
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                                                                                                                                                                                                      Human CCR2-64I polymorphic variant polynucleotide.
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                                         AAS12139 standard; DNA; 1083 BP
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Best Local Similarity 99.9%;
Matches 940; Conservative (
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                                                                                                                                                       04-DEC-2001 (first entry)
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The present sequence encodes human monocyte chemoattractant protein 1 (MCP-1) receptor protein. The MCP-1 receptor protein and encoding DNA are used for the prevention and treatment of tumours and inflammatory, viral, infectious, allergic, diabetic and central nervous system
                                                                                                                                                                                                                                                                                                                                                                                                                ACCACCTTTTTGATTATGATTACGGTGCTCCCTGTCATAAATTTGACGTGAAGCAAATT 159
                                                                                                                                                                                                                                                                                                                                                                                                                             160 GGGGCCCAACTCCTGCCTCCGCTCGCTGGTGTTCATCTTTGGTTTTGTGGGCAAC 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 GGGGCCCAACTCCTGCCTCCACTCGCTGGTGTTCATCTTTGGTTTTGTGGGCAAC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CIGCICAACCIGGCCATCICIGAICIGCIIITICIIAITACICICCCAIIGIGGCICAC 339
                                                                                                                                             DNA encoding human monocyte chemoattractant protein 1 receptor - used to treat tumours and inflammatory, Viral, infectious, allergic, diabetic and central nervous system diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         340 TCTGCTGCAAATGAGTGGTCTTTGGGAATGCAATGTGCAAATTATTCACAGGGCTGTAT 399
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                                                                                                                                                                                                                                                                                                                                                                             580 IGCCAGAAAGAAGAITCIGITTATGICIGGGCCCTIATITICCACGAGGAIGGAAIAAI 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   640 TTCCACACAATAATGAGGAACATTTTGGGGCTGGTCCTGCCGCTGCTCATGTCATGGTCATC
                                                                                                                                                                                                                                                                                                                   37.6%; Score 839; DB 18; Length 1083; 99.8%; Pred. No. 0; ative 0; Mismatches 2; Indels 0
                                                                                                                                                                                                                                                                                         Sequence 1083 BP; 257 A; 259 C; 245 G; 322 T; 0 other;
                                                                                                                                                                                          Claim 1; Page 12; 15pp; Japanese.
                                                                                   (TAKE ) TAKEDA CHEM IND LTD.
                                      96JP-0053574
                                                              96JP-0053574
                                                                                                                                                                                                                                                                                                                              Best Local Similarity 99.8
Matches 939; Conservative
                                                                                                          1997-506557/47.
                                                                                                                      P-PSDB; AAW35833
                                  11-MAR-1996;
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              16-SEP-1997
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760 GCAGIGAGAGICAICTICACCAICAIGAIIGTITACITICICIICIGGACICCCIAIAAC 819
                                                                                                    820 ATTGTCATTCTCCTGAACACCTTCCAGGAATTCTTCGGCCTGAGTAACTGTGAAAGCACC 879
                                                                                                                                                      AGTCAACTGGACCAAGCCAGGTGACAGAGACTCTTGGGATGACTCACTGCTGCATC 939
                                                                                                                                                                   nse in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to G protein-coupled receptors (GPCRs) for which the endogenous ligand has been identified. Non-endogenous constitutively activated versions of known GPCRs are used in the invention for the direct identification of candidate compounds as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor agonists, inverse agonists or partial agonists. Such agonists are useful as therapeutic agents for diseases or disorders associated with GPCRs. The present sequence encodes a non-endogenous
                                                                Human; G protein-coupled receptor; GPCR; non-endogenous; mutant; constitutively activated GPCR; agonist; disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Identifying agonists of G protein-coupled receptors (GPCRs) for udisease treatment, comprises contacting candidate compounds with versions of GPCRs -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1083 BP; 257 A; 260 C; 246 G; 320 T; 0 other;
                                                                                                                                                                                                     940 AATCCCATCATCTATGCCTTCGTTGGGGAGAAGTTCAGAAG 980
                                                                                                                                                                                                                    Non-endogenous human GPCR cDNA, SEQ ID NO: 472.
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                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (AREN-) ARENA PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lehmann-Bruinsma K,
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P-PSDB; ABB56340.
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Query Match
37.6%; Score 839; DB 23; Length 1083;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 939; Conservative 0; Mismatches 2; Indels 0

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880 AGICAACIGGACCAAGCCACGCAGGIGACAGACACICIIGGGAIGACICACIGCIGCAIC 939
                                                                                                                                                                                                                                                                                                                                                                                                                             IGCTACTCGGGAATCCTGAAAACCCTGCTTCGGTGGAAACGAGAAGAAGAAGAAGAAGAAGG 759
                                                                                                                                                                                                                                                                                                                                      640 TICCACACAATAATGAGGAACAITITGGGGCTGGTCCTGCCGCTGCTCATCATGGTCATC 699
                                                                                                                                                                                                                                                                                                        580 TGCCAGAAAGAAGATTCTGTTTATGTCTGTGGCCCTTATTTTCCACGAGGATGGAATAAT 639
                                                                                                                                                        280 CTGCTCAACCTGGCCATCTCTGATCTGCTTTTTCTTATTACTCTCCCATTGTGGGGCTCAC 339
                                                                                                                            TCTGCTGCAAATGAGTGGGTCTTTGGGAATGCAATGTGCAAATTATTCACAGGGCTGTAT 399
                                                         100 ACCACCTITITIGAITAIGAITACGGIGCICCCIGICAIAAAITIGACGIGAAGCAAAIT 159
       820 ATTGTCATTCTCCTGAACACCTTCCAGGAATTCTTCGGCCTGAGTAACTGTGAAAGCACC
                                                                                                                                                                                                                                                                                                                                                                                               520 AGTGTGATCACCTGGTTGGTGGCTGTTTGCTTCTGTCCCAGGAATCATCTTACTAAA
                                                                                                                                                                                                                                                                           ATGCTGTCCACATCTCGTTTCTCAGGAAATACCAACGAGAGCGGTGAAGAAGTC
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AAV84136 standard; DNA; 461

RESULT 14

AAV84136

15-MAR-1999 (first entry)

AAV84136;

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Gaps
                                                                                                                                                                                                                                                                                                                                                                                  used in claimed methods for detecting and identifying the presence HIV-1 CCR5 co-receptor variant nucleic acids (see AAV84125 and AAV84159) in a sample. The detection of CCR5 variants may be used identify individuals at lower risk of infection relative to the general population who, if infected, may exhibit slower progression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Inactive; human Cys-Cys chemokine receptor 5; CCR5; human immunodeficiency virus; type 1; type 2; HIV-1; HIV-2; predisposition; resistance; diagnosis; treatment; prevention; inflammatory disease; rheumatoid arthritis; glomerulonephritis; assthma; idiopathic pulmonary fibrosis; psoriasis; viral infection; cancer; atherosclerosis; autoimmune disorder; ss.
                                                                                                                                                                                                                                                                                                      New CCR5 variant protein of the HIV-1 co-receptor - useful in developing resistance of CCR5-expressing cells to HIV-1 infection
                                                                                                                                                                                                                                                                                                                                                                       is the nucleotide sequence of a claimed hybridisation probe
                              HIV-1; CCR5; CCR5m303; co-receptor; infection; diagnosis; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.9%; Score 65; DB 20; Length 461;
100.0%; Pred. No. 1.4e-21;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                   Beretta A, Braun J, Quillent C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 461 BP; 102 A; 112 C; 106 G; 141 T; 0 other;
     HIV-1 co-receptor CCR5 gene hybridisation probe
                                                                                                                                                                                                                         (MOND-) FOND MONDIALE RECH & PREVENTION SIDA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAT90116 standard; cDNA; 792 BP.
                                                                                                                                                                                                                                                                                                                                                     Claim 8; Page 31; 55pp; English.
                                                 qene therapy; human; probe; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA for inactive human CCR5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-APR-1998 (first entry)
                                                                                                                                                                         98WO-EP03437
                                                                                                                                                                                                   97US-0048057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65; Conservative
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                                                                                                                                                                                                                                                         Arenzana Siesdedos F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                   WPI; 1999-059835/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              526 ATCAC 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216 ATCAC 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                     30-MAY-1997;
                                                                                           Homo sapiens.
                                                                                                                                                                           29-MAY-1998;
                                                                                                                    WO9854317-A1
                                                                                                                                               03-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAT90116;
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                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to AIDS
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                                                                                                                                                                                                                                                                                                                  The present sequence encodes an inactive human CC (Cys-Cys) chemokine receptor 5 (CCR5), which is not a receptor of human immunodeficiency virus type 1 or type 2 (HIV-1 or HIV-2). CCR5 or dispense, treat and/or prevent inflammatory diseases, e.g. rheumatorid arthritis, glomerulonephritis, asthma, especially HIV-1 or HIV-2 infection, cancer, arherosclerosis and autoimmune disorders. Subjects that express the inactive receptor have a predisposition, or resistance to HIV-1 and/or HIV-2.
 /note= "carboxy-terminal coding sequence deleted"
                                                                                                                                                                                                                                        Active and inactive forms of human CC chemokine receptor CCR-5 useful to diagnose, prevent and/or treat inflammatory disorders, autoimmune disease and viral infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.9%; Score 65; DB 18; Length 792;
100.0%; Pred. No. 1.4e-21;
trive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 792 BP; 208 A; 195 C; 156 G; 233 T; 0 other;
                                                                                                                                                                       Libert F, Parmentier M, Samson M, Vassart G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: June 1, 2003, 20:41:22 Job time : 1487 secs
                                                                                                                                                                                                                                                                                           Claim 18; Fig la; 94pp; English.
                                                                                                          96EP-0870102.
96EP-0870021.
                                                                                97WO-BE00023.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.0
                                                                                                                                             (EURO-) EUROSCREEN SA.
                                                                                                                                                                                                 WPI; 1997-479829/44.
                                                                                                                                                                                                             P-PSDB; AAW27406.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          526 ATCAC 530
                                                                           28-FEB-1997;
                                                                                                      06-AUG-1996;
01-MAR-1996;
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                        WO9732019-A2
                                                   04-SEP-1997
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